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JAMES M. BOYD, JR., Of Counsel

December 30, 2002

Mr. Arthur G. Baggett, Jr., Chairman
State Water Resources Control Board
P. O. Box 100
Sacramento, California 95812-0100

Re: November 27, 2002 Draft Order Regarding Legal Classification Of
Groundwater Pumped By North Gualala Water Company

Dear Mr. Baggett:

This letter, submitted on behalf of the North Gualala Water Company ("North Gualala"), comments on the November 27, 2002 draft order regarding the legal classification of the groundwater pumped by the North Gualala Water Company in the Elk Prairie (the "Draft Order"). For the reasons discussed in this letter and in the letter from Joseph Scalmanini of Luhdorff & Scalmanini, North Gualala believes that the Draft Order contains some serious problems that must be corrected before the SWRCB adopts any final order in this matter.

GENERAL COMMENTS

The basic problem with the Draft Order is that, although it purports to apply the legal requirements of Water Code section 1200 and the elements for determining the existence of a subterranean stream that were stated by the California Supreme Court in *City of Los Angeles v. Pomeroy* (1899) 124 Cal. 597, it does not actually do so. Specifically, although the *Pomeroy* decision requires that there be a "contracted and bounded channel" for there to be a defined subterranean stream (see *id.*, at p. 634), the Draft Order: (a) essentially ignores the requirement for a "contracted" channel; and (b) incorrectly uses a "relative permeability" test to conclude that the purported channel of alluvium in the Elk Prairie is "bounded," even though the evidence of significant flows groundwater from the neighboring bedrock into this alluvium indicates that this purported channel actually is not bounded. This conclusion also is defective because it is based on the incorrect assumption, not supported by any evidence in the administrative record and contrary to basic principles of groundwater hydrology, that the differences in the permeabilities of the alluvium and the bedrock at the Elk Prairie cause a one-way barrier to groundwater flow.

Moreover, although the *Pomeroy* decision indicates that there must be flow "in a certain direction and in a regular channel" for there to be a subterranean stream (*id.*, at p. 626), and although Water Code section 1200 similarly requires that a subterranean stream flow "through" a channel, the

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Draft Order largely ignores this requirement and instead concludes that any groundwater flow is sufficient, whether or not its flow direction actually is through the purported channel.

The reported California court decisions only have held that subterranean streams existed in cases where there were stream underflows having hydraulic continuity with the streams' surface waters and generally flowing in the same directions as the streams. Similarly, the SWRCB and its predecessors historically have only asserted water-right jurisdiction over groundwater that either was the underflow of a surface water stream or was closely associated with a surface-water stream. The major criticism of the first draft decision in the Pala/Pauma matter by many members of the California water community was that it would have set a precedent that would significantly expanded the SWRCB's water-right jurisdiction to include almost all groundwater that occurs in alluvial materials located in valleys with bedrock boundaries in California. For example, under this broad rule, groundwater in the Salinas Valley and the Sacramento Valley, both which contain groundwater in deposits of alluvial materials surrounded by bedrock formations, would have been subject to the SWRCB's water-right jurisdiction. Ultimately, the SWRCB correctly decided not to adopt this draft decision, and instead ruled that the groundwater in the Pauma Basin was percolating groundwater.

Unfortunately, the Draft Order in the North Gualala matter once again attempts the same type of proposed expansion of the SWRCB's water-right jurisdiction. Although the Draft Order nominally is limited to the North Fork of the Gualala River, it, like in the first Pala/Pauma draft decision, would set a precedent that would extend the SWRCB's water-right jurisdiction to groundwater in almost alluvial materials in bedrock valleys in California. In fact, the Draft Order asserts, based on an incorrect reading of the California Supreme Court's decision in *City of Los Angeles v. Hunter* (1909) 156 Cal. 603, that the SWRCB's water-right jurisdiction already includes all of the groundwater in alluvial materials in one such valley, the San Fernando Valley!

Besides being inconsistent with the *Pomeroy* and *Hunter* decisions, such a dramatic expansion of the SWRCB's water-right jurisdiction also would be inconsistent with at least two other California Supreme Court decisions, which held that percolating groundwaters normally are found in alluvial materials in canyons and basins that are surrounded by bedrock materials. In *San Bernardino v. Riverside* (1921) 186 Cal. 7, 14, the court stated:

The law of so-called "percolating" waters presents the principal questions in issue in this case. These waters are almost invariably found in permeable material of more or less density, such as sand, gravel, and boulders intermixed, in which the water will move readily by the force of gravity.

Similarly, in *Katz v. Walkinshaw* (1903) 141 Cal. 116, 126, the court stated:

The deep cañons or basins in course of ages have become filled with the washings from the mountains, largely composed of sand and gravel, and into this

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porous material the water now running down from the mountains rapidly sinks and slowly moves through the lands by the process usually termed percolation, forming what are practically underground reservoirs. It is the water thus held or stored that is now being taken to eke out the supply from natural sources. In almost every instance of a water supply from the so-called percolating water, the location of the well or tunnel by which it is collected is in one of these ancient cañons or lake basins. Outside of these there is no percolating water in sufficient quantity to be of much importance in the development of the country or of sufficient value to cause serious litigation.

The Draft Order would attempt to turn these conclusions of the California Supreme Court on their heads, by creating a new rule where percolating groundwater almost never would be found in such alluvial materials. Such a dramatic change in the law should come, if at all, only from new statutes enacted by the Legislature, not from an SWRCB re-interpretation of old statutes and court decisions.

Another fundamental problem of the Draft Order is that its analysis essentially ignores the rule, stated in several California Supreme Court decisions, that the party asserting that groundwater is flowing in a subterranean stream through a known and definite channel has the burden of proving this. (*Arroyo Ditch & Water Co. v. Baldwin* (1909) 155 Cal. 280, 284; *City of Los Angeles v. Pomeroy, supra*, 124 Cal., at pp. 628, 633-634; *Hanson v. McCue* (1871) 42 Cal. 303, 308.) Here, that party is the California Department of Fish and Game ("DFG"). However, instead of correctly applying this rule, the Draft Order accepts without question the testimony of DFG's witness on the key factual issues of groundwater flow directions in the Elk Prairie and amounts of groundwater flow from the Franciscan formation into the alluvium at the northern side of the Elk Prairie, even though this testimony was unsupported by competent evidence and was refuted during the cross-examination of this witness and by testimony from other witnesses that was supported by competent evidence. The Draft Order's analyses need to be edited so that they reflect an impartial weighing of all of the evidence, and not just selective, result-oriented, out-of-context discussions of certain testimony, and so that they recognize DFG's burden of proof.

The Draft Order also contains several other legal and factual errors that are discussed in the following specific comments. For the reasons discussed in this letter, the SWRCB should not adopt the Draft Order in its present form. The Draft Order's discussions, analyses and conclusions should be corrected so that they are accurate, before the SWRCB adopts any final order in this proceeding.

SPECIFIC COMMENTS

Introduction and Background (Draft Order, pp. 3-9)

1. Several statements in the introduction and background sections of the Draft Order are improperly one-sided and do not neutrally describe the relevant issues. For example, the first

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sentence of the Draft Order (on page 3) only describes the possibility that the groundwater is a subterranean stream and completely ignores the fact that this groundwater might instead be percolating groundwater. This sentence should be edited as follows:

In this proceeding, North Gualala Water Company (North Gualala) is asking the State Water Resources Control Board (SWRCB) to determine whether the groundwater that North Gualala is extracting from its Wells 4 and 5, or might extract from proposed Wells 6 and 7 on its property in the Elk Prairie area, is extracted from a subterranean stream flowing through a known and definite channel, or instead is percolating groundwater.

2. On page 5, the Draft Order states that North Gualala has "plans to add additional production wells in the future," but fails to mention that North Gualala has explicitly recognized that the total pumping of all its present and future wells in the Elk Prairie area must not be so high that it would induce any recharge from the North Gualala River. (See North Gualala Closing Brief, pp. 10-11, 20.) This omission is particularly significant because of DFG's "policy concern," described on page 9 of the Draft Order, regarding the alleged potential effects of future North Gualala pumping on flows in the North Fork Gualala River. To correct this omission, this sentence should be edited as follows:

North Gualala currently has two production wells and several monitoring wells in Elk Prairie, and plans to add additional production wells in the future. The two current production wells, and the two planned production wells take water from alluvium under Elk Prairie. These facilities are shown on Figure 1: North Gualala has stated that it will limit its total pumping from all of these wells to levels that will not induce any recharge from the North Fork Gualala River.

3. In my March 19, 2002 letter to you, I pointed out that the SWRCB's hearing notice for this proceeding incorrectly described the chronology of North Gualala's 1993 petition to change water-right Permit 14853 and the Division of Water Rights 1998 action on the Luhdorff & Scalmanini report. Although your April 8, 2002 letter acknowledged that the hearing notice would be revised to correct this inaccuracy, page 7 of the Draft Order nevertheless contains similar inaccurate statements regarding this chronology. It should be revised as follows:

In December 1992, based on the hydrogeology report produced by the neighboring company, the Division sent recommended to North Gualala a letter, stating that North Gualala's pumping of its Well 4 was an illegal diversion of water and that North Gualala needed to obtain a water right permit for Wells 4 and 5. In response, North Gualala petitioned for a change in point of diversion under Permit 14853, seeking to delete the infiltration gallery as a point of diversion and add Wells 4 and 5 as points of diversion. In its letter transmitting the petition, North Gualala disputed the need

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for a water right permit for the wells, and North Gualala reserved its right to ask the SWRCB for a hearing on the classification of the groundwater. and in 1998, North Gualala submitted a report to the Division, concluding that the wells do not take water from a subterranean stream and consequently do not require a permit to appropriate the water. The Division responded indicated that it was not satisfied that the groundwater being extracted is not taken from a subterranean stream. In response, North Gualala petitioned for a change of point of diversion under Permit 14853, seeking to delete the infiltration gallery as a point of diversion and add Wells 4 and 5 as points of diversion. In Order WR-99-09-DWR, the Chief of the Division approved the petition for change in point of diversion, subject to terms and conditions. In Order WR 99-011, the SWRCB affirmed Order WR-99-09-DWR in response to a petition for reconsideration. North Gualala reserved its right to ask the SWRCB for a hearing on the classification of the groundwater.

Legal Authorities (Draft Order, pp. 9-13)

4. On page 10, while discussing the phrase "subterranean streams flowing through known and definite channels" in Water Code section 1200, the Draft Order states that "No California appellate court decision interprets this phrase in the context of the SWRCB's permitting authority, which dates from 1914." However, the similar provision of section 42 of the Water Commission Act, predecessor of Water Code section 1200, actually is discussed in *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 933-934, and the non-applicability of this statute to percolating groundwater is discussed in *Orange County Water Dist. v. City of Riverside* (1959) 173 Cal.App.2d 137, 192, 195-196. The Draft Order should be edited to refer to these court decisions.

5. Later on page 10, the Draft Order states that "[s]everal California appellate decisions find the existence of a subterranean stream in the context of claims of pueblo rights, pre-1914 rights, appropriative rights, and riparian rights." This is an incorrect, or at least a very misleading, description of these court decisions. Three of the four decisions just concerned the underflows of surface-water streams and not separate subterranean streams. For example, *City of Los Angeles v. Pomeroy* (1899) 124 Cal. 597 concerned the underflow of the Los Angeles River. As the court stated in that case:

There seems to be no substantial conflict in the evidence and no radical difference between the parties as to the character of the subsurface flow in the tract condemned. It is agreed that all the waters of the San Fernando valley, except what is lost by evaporation or consumed in plant life, flow out through the narrow pass between the eastern extremity of the Cahuenga range and the Verdugo hills, either on or beneath the surface, and there is abundant testimony to warrant the conclusion that at ordinary stages of the river the water flowing on the surface and that which is beneath the surface are in intimate contact and moving in the same direction.

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(*Id.*, at p. 617.) Similarly, in *Vineland Irrigation Dist. v. Azusa Irrigating Co.* (1899) 126 Cal. 486, the court stated:

“the water from the surface flow of the stream percolates through this gravelly bed of the river and fills the voids until in portions of the canyon the whole bed becomes saturated from wall to wall. This lower or percolating water is directly connected with the surface flow, and protects and supports, and is necessary for the protection and support of, the surface flow in its course in the natural bed of the stream.”

(*Id.*, at p. 493.) The Draft Order recognizes that the surface and subsurface waters involved in *Rancho Santa Margarita v. Vail* (1938) 11 Cal.2d 501 were interconnected. (See Draft Order, p. 11.)

Because the distinction between underflows of surface streams and subterranean streams that are not connected to surface streams is important in this proceeding, the phrase “subterranean stream” in the first line of the last paragraph on page 10 of Draft Order should be changed to “underflow of surface streams.”

As discussed later in this letter (on pages 7-8), the fourth decision cited here by the Draft Order, *City of Los Angeles v. Hunter* (1909) 156 Cal. 603, actually did not hold that any underflow or subterranean stream was present. Instead, it applied the “doctrine of percolating waters” to the groundwater involved in that case. (*Id.*, at p. 608.) The citation to *Hunter* on page 10 of the Draft Order therefore should be deleted.

6. The first paragraph on page 11 of the Draft Order contains some serious misstatements of pre-1903 California groundwater law. The second, third and fourth sentences of this paragraph state:

In 1899, the courts believed, based on English common law, that a groundwater diverter could take water for use on lands apart from the overlying lands only if the source groundwater was flowing in a subterranean stream. If the source groundwater was percolating, it could be used only on the overlying land, of which it was considered a part. Accordingly, it was important to make a distinction between subterranean streams and percolating groundwater.

These statements incorrectly describe the law of percolating groundwater rights that existed in California in 1899. Contrary to the Draft Order, this law actually did authorize the pumping of percolating groundwater for beneficial uses on non-overlying lands. (See *Hanson v. McCue* (1871) 42 Cal. 303, 306-309; *Gould v. Eaton* (1896) 111 Cal. 639, 641-645.) These statements in the Draft Order also completely ignore the relative priorities of the different types of groundwater rights,

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which actually was the principal issue in the groundwater cases of this era. These sentences should be replaced with the following, accurate statements:

In 1899, prior California court decisions had held that the legal rules that applied to surface water also applied to groundwater flowing in subterranean streams. Such waters therefore could only be appropriated for use on non-overlying and non-riparian lands if the appropriation would not injure holders of higher-priority water rights from the same supply. On the other hand, these rules did not apply to percolating groundwater. The owner of land with percolating groundwater could pump the groundwater and convey it to non-overlying lands for beneficial uses there, even if doing so would injure other water users. (*Hanson v. McCue* (1871) 42 Cal. 303, 306-309; *Gould v. Eaton* (1896) 111 Cal. 639, 641-645.) Accordingly, the distinction between subterranean streams and percolating groundwater was important, because in many cases it affected the relative priorities of the parties' rights to the groundwater. The distinction was important in *Pomeroy* because it affected the valuation of the land being condemned by the City of Los Angeles.

7. The first sentence of the second full paragraph on page 11 of the Draft Order again inaccurately states that, under pre-1903 California groundwater law, percolating groundwater could be used only on overlying lands, and it completely misses the key holding of the *Katz v. Walkinshaw* decision, that percolating groundwater henceforth would be subject to the rules that already applied to surface water and to groundwater flowing in subterranean streams. This sentence should be edited as follows:

Only a few cases follow *Pomeroy*, because a few years after *Pomeroy* was decided, the California Supreme Court rejected the common law regarding percolating groundwater and decided that in California, the diversion and use of percolating groundwater would be subject to the rules that already applied to surface water and groundwater flowing in subterranean streams could be appropriated for use on non-overlying lands, so long as its appropriation did not injure the owners of the overlying land. (*Katz v. Walkinshaw* (1903) 141 Cal. 116 [74 P. 766].)

8. The last sentence on page 11 of the Draft Order states that the language in section 42 of the Water Commission Act "comes from the *Pomeroy* opinion." However, the Draft Order does not cite any legal authority for this speculation about the source of this statutory language. This sentence should be replaced with the following accurate statement: "This language is consistent with language in the *Pomeroy* opinion."

9. The Draft Order states that the court in *City of Los Angeles v. Hunter* (1909) 156 Cal. 603 ruled that the groundwater in the San Fernando Valley is not percolating groundwater, but instead

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is groundwater in a subterranean stream. (See Draft Order, pp. 10, 12-13, 15-16.) To reach this conclusion, the Draft Order quotes from the following sentence from *Hunter*:

The waters of the San Fernando Valley, therefore, are not percolating waters in the common law sense of the term—vagrant, wandering drops moving by gravity in any and every direction along the line of least resistance.

(*Id.*, at p. 607.) However, the Draft Order improperly ignores the next sentence in the same decision, which states:

These waters percolate, it is true, but only in the sense that they form a vast mass of water confined in a basin filled with detritus, always slowly moving downward to the outlet, in the effort, in conformity with physical law, to attain a uniform level.

(*Ibid.*) The Draft Order also improperly ignores the next page of the *Hunter* decision, where the court applied the “doctrine of percolating waters” as modified by the court six years earlier in *Katz v. Walkinshaw*, and where the court referred to the groundwaters as “these so-called percolating waters.” (See 156 Cal., at p. 608.) Thus, while the court affirmed the trial court’s finding that the groundwater being pumped by the landowners was “part of the subterranean flow of the Los Angeles River” (*id.*, at p. 609), and while the court held that the landowners in *Hunter* could not pump groundwater to the injury of Los Angeles’s senior pueblo water rights, the court applied the “doctrine of percolating waters” to reach this holding. A later California Court of Appeal decision confirmed that the groundwaters at issue in *Hunter* were “percolating waters.” (*Eckel v. Springfield Tunnel and Development Co.* (1927) 87 Cal.App. 617, 622.) In his treatise on California water-rights law, Wells Hutchins similarly stated that the groundwater involved in *Hunter* was percolating groundwater:

This water situation was not likened to a definite underground stream.

(W. Hutchins, The California Law of Water Rights, p. 420 (1956).)

The California concept of percolating waters has broadened considerably from that of “percolating waters in the common law sense of the term—vagrant, wandering drops moving by gravity in any and every direction along the line of least resistance.” The term may contemplate “a vast mass of water confined in a basin filled with detritus, always slowly moving downward to the outlet’ or outlets.”

(*Id.*, at p. 426, footnotes, which cite the *Hunter* and *Eckel* decisions, omitted.)

The Draft Order therefore is incorrect when it states that *Hunter* held that the groundwater in that case was not percolating groundwater. Thus, besides deleting the reference to *Hunter* on page

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10 of the Draft Order, the following sentences should be added at the end of the carryover paragraph at the top of page 13 of the Draft Order:

However, the court went on to state that these waters percolated "in the sense that they form a vast mass of water confined in a basin filled with detritus, always slowly moving downward to the outlet." (*Ibid.*) Following this statement, the court applied the "doctrine of percolating waters" that it had described six years earlier in *Katz v. Walkinshaw* to these waters. (*Id.*, at 608.)

Presence of a Known Subterranean Channel (Draft Order, pp. 13-15)

10. On page 14 of the Draft Order, in the first full paragraph, the last two sentences describe the "fresh bedrock" as follows:

The fresh bedrock unit is described as, "[s]lightly weathered well-fractured Franciscan sandstone with an occasional well-weathered (clayey) zone." (R.T., pp. 91-92; DFG 15, last page.) Bedrock features are described as being "very tight."

This description completely ignores the "Weathered Rock" that is shown in the same figure, even though this "Weathered Rock" is located at the interface between the alluvium and the bedrock that is the alleged subterranean channel boundary on the northern side of the Elk Prairie. Because this important bedrock formation is located at the bedrock/alluvium interface that is critical in this proceeding, it should not be ignored in the SWRCB's order. Instead, the following sentence should be added at the end of this paragraph of the Draft Order:

On the other hand, the weathered rock unit that is located along the northern edge of the alluvium down to depths of about 50 feet is described as "[s]oil and thoroughly weathered to moderately weathered and well-fractured Franciscan sandstone."

Presence of a Defined Subterranean Channel (Draft Order, pp. 15-17)

11. On page 15 of the Draft Order, in the second full paragraph, the third sentence states: "Neither of the terms 'contracted' and 'bounded' enjoys modern usage." There is no citation to support this statement. Also, because the Draft Order otherwise recognizes that the *Pomeroy* decision provides the applicable legal standards, there is no reason why the SWRCB should attempt to ignore these critical terms in *Pomeroy*. This sentence therefore should be deleted from the Draft Order.

12. The third full paragraph on page 15 of the Draft Order concludes, purportedly based on the *Pomeroy* and *Hunter* decisions, that the "contracted" requirement in *Pomeroy* is not a requirement at all and that the alleged channel simply must be confined by its bed and banks. This

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discussion ignores the basic fact that the channel in *Pomeroy* actually was a "contracted" channel, a relatively narrow outlet through which groundwater from the entire San Fernando Valley, which is up to 12 miles wide, flowed. (See 124 Cal., at pp. 605-606.) This discussion also improperly assumes that the *Hunter* decision held that groundwater in the entire San Fernando Valley was flowing in a subterranean stream, when, as previously discussed in this letter (see pages 7-8 above), the *Hunter* decision actually held the opposite. Because this paragraph does not accurately describe the *Pomeroy* and *Hunter* decisions, it should be deleted and replaced with a paragraph that: (a) fairly and accurately discusses the *Pomeroy* requirement for a "contracted" channel; (b) recognizes that the requirement for a "contracted" channel is separate from the requirement for a "bounded" channel; and (c) recognizes that no "contracted" channel is present in the Elk Prairie.

13. The third full paragraph on page 15 of the Draft Order also relies on the *Pomeroy* decision's description of the channel boundaries in that case as "comparatively impervious" (see 124 Cal., at p. 632) for its conclusion in the first paragraph on page 17 that a "relative difference in permeability between the Franciscan bedrock and the alluvium" is sufficient to establish a definite underground channel. However, in *Pomeroy*, the court also described the subterranean channel in that case as "a well-defined channel with impervious sides and bed" (*Id.*, at p. 631), which is not consistent with a "relative impermeability" test. Moreover, the controlling language in *Pomeroy* states that "'defined' means a contracted and bounded channel." (*Id.*, at p. 634.) This controlling language emphasizes the existence of a flow boundary, rather than simply some difference in relative permeabilities, for there to be a definite underground channel. Thus, the interface between the alleged subsurface channel and its bed and banks must actually act as a significant boundary to groundwater flow. As the SWRCB stated in its water-right Decision 1639: "A channel or watercourse, whether surface or underground, must have a bed and banks which confines the flow of water." (D-1639, p. 4, emphasis added.) Section 4.2 of the Draft Order therefore incorrectly applies a "relative impermeability" test when, under the *Pomeroy* decision, the correct test is whether or not there actually is a flow boundary. This section therefore should be edited so that it applies the proper legal test.

14. The last paragraph of section 4.2, which is the first full paragraph on page 17 of the Draft Order, states that the "relative difference in permeability" between the bedrock and the alluvium creates a one-way flow boundary that allegedly allows water to flow from the bedrock into the alluvium, but not back the other way. This statement is completely inconsistent with fundamental principles of groundwater hydrology, under which differences in groundwater elevations, that is, groundwater gradients, determine flow directions. While differences in permeabilities may affect groundwater flow rates, they do not affect groundwater flow directions. While the cited pages of the Reporter's Transcript contain Mr. Scalmani's testimony regarding flow directions, nothing in that testimony even remotely suggests that permeability differences affect groundwater flow directions. Section 4.2 of the Draft Order therefore must be edited because, in addition to being legally incorrect (for the reasons discussed in the preceding paragraphs of this letter), it also is factually incorrect.

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Groundwater Flow Directions (Draft Order, pp. 17-20)

15. On pages 17-18 of the Draft Order, in the first paragraph of section 4.3.1, the fifth and sixth sentences describe the opinions of DFG's witness, Kit Custis, regarding groundwater flow directions in the Elk Prairie area. This discussion completely ignores the detailed rebuttal testimony of North Gualala's witness, Joseph Scalmanini, which demonstrates that Mr. Custis's opinions regarding flow directions were not supported by the available data and were contrary to basic principles of groundwater hydrology. (See R.T., pp. 233-247.) These sentences therefore should be deleted from the Draft Order.

16. The second sentence of the first full paragraph on page 18 of the Draft Order also appears to be based on Mr. Custis's testimony, and ignores the basic fact (which is stated in the previous sentence of the Draft Order) that groundwater flow direction is determined by groundwater gradients, and not by differences in permeabilities. This sentence should be deleted from the Draft Order. The last sentence of this paragraph is incomprehensible, because it does not describe where the SWRCB believes that groundwater "discharges into the alluvium." This sentence should be edited to make it clear that the principal groundwater discharge into the alluvium in the Elk Prairie area is from the bedrock on the northern side of the Elk Prairie.

17. In the second full paragraph on page 18 of the Draft Order, the first sentence states: "North Gualala argues that the direction of the subterranean flow, since it deviates from the surface flow, means it is not flowing in a subterranean stream." This sentence should be edited, both because it contains horrible grammar, and because it does not accurately describe North Gualala's position in this proceeding. North Gualala's position is that the relevant inquiry here is whether or not the groundwater flow direction is parallel to, or perpendicular to, the subsurface channel. While North Gualala's closing brief contains some statements regarding the relative flow directions of groundwater at the Elk Prairie and the North Gualala River, those statements were made to describe the geographical directions of the flows, not to make a legal argument on this issue. North Gualala's legal argument on this issue is succinctly stated in its closing brief:

Because the groundwater beneath the Elk Prairie is flowing in a direction that is generally perpendicular to the subsurface channel, the fourth element of the Garrapata test is not satisfied here.

(North Gualala's Closing Brief, p. 15, lines 22-23.)

18. The second, third and fourth sentences of the second full paragraph on page 18 of the Draft Order appear to criticize North Gualala for not having data regarding bedrock groundwater levels, yet they ignore that the burden of proof is on DFG to prove that the groundwater pumped by North Gualala's Elk Prairie wells is flowing in a subterranean stream. The Draft Order therefore

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should be edited so that it discusses that DFG did not meet its burden of proving its positions regarding groundwater flow directions.

19. The last sentence of the second full paragraph on page 18 states that DFG's witness, Mr. Custis, testified that he believed that only a "minor amount" of recharge of the alleged subterranean stream comes from the bedrock. This statement, like Mr. Custis's testimony on this issue, is unclear because it does not distinguish between recharge from the bedrock in the Elk Prairie area and recharge from the bedrock further upstream. Moreover, the Draft Order improperly ignores the fact that Mr. Custis's opinions regarding the alleged source of dry-season North Gualala River flows were completely demolished at the hearing by North Gualala's cross-examination of him and by North Gualala's rebuttal evidence. (See North Gualala's Closing Brief, pp. 3-7.) This sentence should be deleted from the Draft Order.

20. The third full paragraph on page 18 of the Draft Order contains some general discussions about groundwater flow directions and then concludes that the groundwater flow in the Elk Prairie area is "behaving like a stream." This discussion applies the wrong legal test. The test is not some general, standardless inquiry into whether groundwater is "behaving like a stream." Instead, the test is whether or not the groundwater is in a "subterranean stream[] flowing through [a] known and definite channel[]." (Water Code, § 1200.) The only reasonable interpretation of the requirement that flow be "through a channel" is that the flow must be generally parallel to the channel. (See North Gualala Closing Brief, p. 15, lines 11-21.) This paragraph of the draft order should be edited so that it discusses the correct legal test and the fact that the only available evidence on groundwater flow directions indicates that the groundwater flow at North Gualala's Elk Prairie wells is generally perpendicular to the subterranean channel. (See *id.*, pp. 7-10.)

21. The first full paragraph on page 19 of the Draft Order improperly ignores the critical issue of whether or not the groundwater flow direction is parallel to the subterranean channel. Simply stating that groundwater is "flowing" without discussing whether or not the directions of the groundwater are generally parallel to the channel effectively would improperly eliminate the fourth element of the Garrapata test. (See R.T., pp. 230-231.) This paragraph should be edited to correct this deficiency.

22. Although it is not very clear, the first paragraph of section 4.3.2, on page 19 of the Draft Order apparently discusses flows of groundwater from the Franciscan complex into the North Fork of the Gualala River upstream of the Elk Prairie, and then concludes that groundwater flows in a subterranean stream parallel to the North Fork Gualala River into the Elk Prairie. However, there is absolutely no evidence to support this conclusion. This paragraph therefore should be edited so that its conclusions actually are based on evidence in the administrative record.

23. Although the first paragraph on page 20 of the Draft Order also does not clearly describe what groundwater is being discussed, this paragraph apparently is discussing the groundwater that

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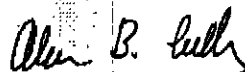
flows from the Franciscan complex located north of the Elk Prairie south into the alluvium at the Elk Prairie. This paragraph concludes that, even if such groundwater flows are significant, they do not change the Draft Order's conclusion, because once this groundwater flows into the alluvium, it is "flowing in a subterranean stream." This discussion contains the same defect as many of the Draft Order's previous discussions of groundwater flow directions: it does not discuss whether the groundwater flow direction is generally parallel, or generally perpendicular, to the subterranean channel. Because this groundwater flow direction actually is perpendicular to the channel, this groundwater is not flowing "through" the channel, as required by Water Code section 1200.

24. The second paragraph on page 20 of the Draft Order repeats the Draft Order's earlier mistake of concluding that the difference between the permeability of the alluvium and the permeability of the Franciscan bedrock "prevents the movement of groundwater of out the channel." As previously discussed in this letter (see page 10 above), there is no evidence supporting this statement, which is contrary to basic principles of groundwater hydrology.

Conclusion (Draft Order, pp. 20-21)

25. For the reasons discussed in this letter, the Draft Order's conclusion that the groundwater pumped by North Gualala's Elk Prairie wells is in a subterranean stream flowing through a known and definite channel is based on incorrect legal and factual analyses. The Draft Order should be edited to correct these deficiencies and to reach the opposite conclusion: North Gualala's Elk Prairie wells pump percolating groundwater.

Very truly yours,



ALAN B. LILLY

ABL:tmo

cc: Peter S. Silva
Richard Katz
Gary Carlton
Paul Murphey
Attached Service List

